

Work Order ID 75258

75258

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October-19-11 1:37:28 PM

Item ID: D3269-2 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Bubble Window, RH
 Start Date: 19/10/2011 Start Qty: 2.00 ***2*** Cust Item ID:
 Required Date: 07/11/2011 Req'd Qty: 2.00 ***2*** Customer:
 Reference:

Approvals: Process Plan: M.L.J Date: 11/10/11 Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3269	Rev E								
100		0.00							
100	HAND FINISHING THERMOFORMING								
Thermoform	Memo	0.00							
Thermoforming Machine	Set up Clamping Frame and Load Programas per Folio FTA 014								<u>DL</u> 11/12/08
110		0.00							
110	HAND FINISHING THERMOFORMING								
Thermoform	Memo	0.00							
Thermoforming Machine	Cut Blanks to 30" by 48"					x2			<u>DL</u> 11/12/08
120		0.00							
120	THERMOFORMING MACHINE								
Thermoform	Memo	0.00							
Thermoforming Machine	Thermoform as per Dwg. D3269 and Folio FTA 014 Dwg. Rev. <u>E</u> Folio Rev. <u>C</u>					x2			<u>DL</u> 11/12/08

W/O:		WORK ORDER CHANGES					
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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NOTE: Date & initial all entries

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Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	QC2- Inspect parts off machine FAI/FAIB	0.00							
130						v2			DL
QC	Memo	0.00							11/12/08
Quality Control	1) Check Surface finish for undesired marks, voids, dimples etc. 2) Check depth of bubble to ensure conformity to drawing tolerances.								
140	QC8- Inspect parts - second check	0.00							
140						(x2)			
QC	Memo	0.00							8/12/12
Quality Control									
150	HAND FINISHING THERMOFORMING	0.00							
150						x2			DL
Thermoform	Memo	0.00							11/12/12
Thermoforming Machine	1) Trim off excess flange material 2) Buff out any light scratches or blemishes 3) Etch part number and batch number								

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N900040100

Setup Start *NS1*

Stop *NS2*

Start Date: 19/10/2011 **Start Qty:** 2.00

2

Cust Item ID:

Required Date: 07/11/2011 **Req'd Qty:** 2.00

2

Customer:

Reference:

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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QC5- Inspect part completeness to step on W/O

0.00

160

0.00

QC

Quality Control

Memo

1) Visually inspect for clarity, and proper formation.

170

Identify as per dwg & Stock Location: 1/6 0.00

0.00

170

Packaging

Packaging

Memo

0.00

Packaging

180

QC21- Final Inspection - Work Order Release	0.00
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0.00

180

QC

Memo

0.00

Quality Control

MF
11-12-13

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Picklist Print

October-19-11 1:37:31 PM

Page 1

Work Order ID: 75258

75258

Parent Item: D3269-2

D3269-2

Parent Item Name: Bubble Window, RH

Start Date: 19/10/2011

Required Date: 07/11/2011

Start Qty: 2.00

Required Qty: 2.00

Comments: IPP A 05.03.22 New issue KJ/JLM
 IPP B 05.05.09 Added engraving EC
 IPP Rev:06-07-03 As per Rev C JLM
 IPP C 07.11.06 Thermoform in-house DL verified by:EC
 IPP Rev: D 08.07.24 As per New Tool DL.

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
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MACRYLICS.177

Purchased

No

sf

44.6239

24.12211

MACRYLICS 177

0.177" PLEXIGLAS G CLEAR CAST ACRYLIC SHEET

**

Location

Loc Qty

Loc Code

therm

44.623895

116796

44.623895

119509.

24.12211 sq ft.

11/12/08

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DART AEROSPACE LTD		Work Order:	75258
Description: Bubble Window, RH (R44)		Part Number:	D3269-2
Inspection Dwg: D3269	Rev: E	Page 1 of 1	

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

THERMOFORMING SECTION

Description	Accept	Reject	Method of Inspection	Comments
Depth of bubble within tolerances	✓			
Shape Definition	✓			
Material imperfections such as bumps, cracks, voids, scratching	✓			

Measured by:	<i>Wh</i>	Date:	11/12/08
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TRIMMING SECTION

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
10.0	+/-0.25	10.25	✓		TAPE DL-01	
6.2	0.036 Min	6.25	✓		ULTRA	
3.8	0.057 Min	3.8	✓		ULTRA	

Measured by:	<i>Wh</i>	Date:	11/12/12
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Audited by:	<i>S</i>	Date:	11/12/13
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Prototype Approval:		Date:	
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Rev	Date	Change	Revised by	Approved
A	08.11.27	New Issue	KJ/DL	
B	09.10.16	Tolerances revised per Dwg Rev E	KJ	

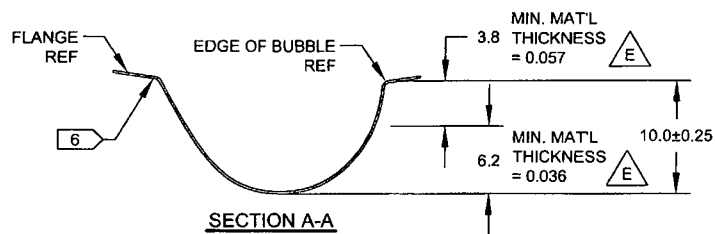
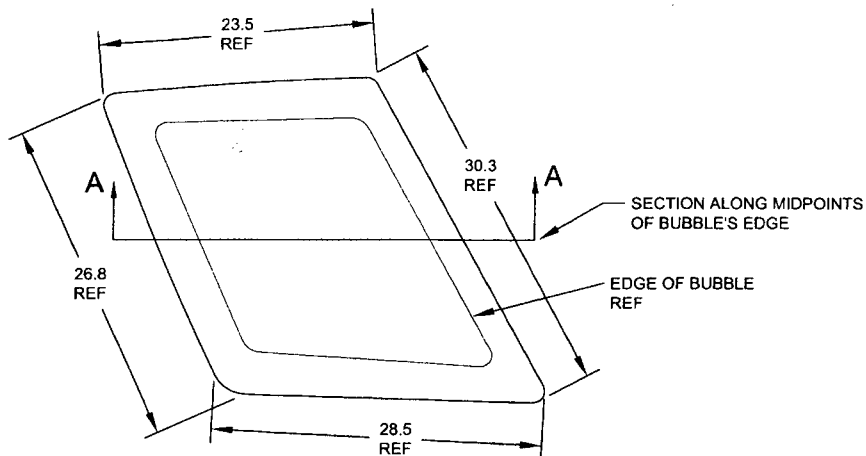
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D3269-1 BUBBLE WINDOW, LH

NOTES:

- 1) MATERIAL: PLEXIGLAS G CLEAR CAST ACRYLIC SHEET PER LP-391 TYPE 1 GRADE C OR POLYCAST II CLEAR ACRYLIC SHEET PER MIL-P-5425
0.177 TO 0.188 THICK (STOCK, REF DART SPEC M-ACRYLIC-S)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.010 TO 0.020 MAX
- 6) IDENTIFICATION: ENGRAVE P/N & B/N ON FLANGE WITHIN 0.25" OF BUBBLE. USE 0.125" LETTERS TO MAX DEPTH OF 0.005".
- 7) WEIGHT: 4.88 lbs
- 8) FORM PER D3269-1T1 AND QSI 022
FORMING PROCESS: (a) DRAPE OVER D3269-1T1 MOLD
(b) HEAT TO 290°F
(c) VACUUM FORM TO SPECIFIED HEIGHT
(d) LET COOL TO AT LEAST 100°F BEFORE HANDLING
(e) TRIM FLANGE TO PROFILE OF MOLD

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 75258 M.L.J
11/10/19

RELEASED
2009-09-23

E	0.057 WAS 0.095 (ZN C6-1, C7-2); 0.036 WAS 0.050 (ZN B6-1, B7-2) PER PAR 09-029	RF	09.08.21
D	REFORMAT, CHG OVERALL REF DIMS, CHG FORMING PROC (A8-1, A8-2), MIN WALL WAS 0.100 NOW 0.095 (C6-1, C7-2)	CP	08.02.13
C	NO LONGER TRIMMED	CP	06.06.22
B	UPDATE MATERIAL SPEC.	CP	05.03.10
A	NEW ISSUE	CP	05.02.18
REV.	DESCRIPTION	BY	DATE
DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	JP	DRAWING NO.	REV. E
MFG. APPR.	JP	D3269	SHEET 1 OF 2
APPROVED	JP	TITLE	SCALE
DE APPR.	JP	BUBBLE WINDOW	NTS
DATE	09.08.21	COPYRIGHT © 2005 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

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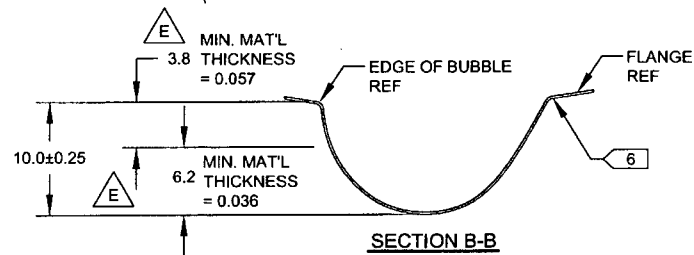
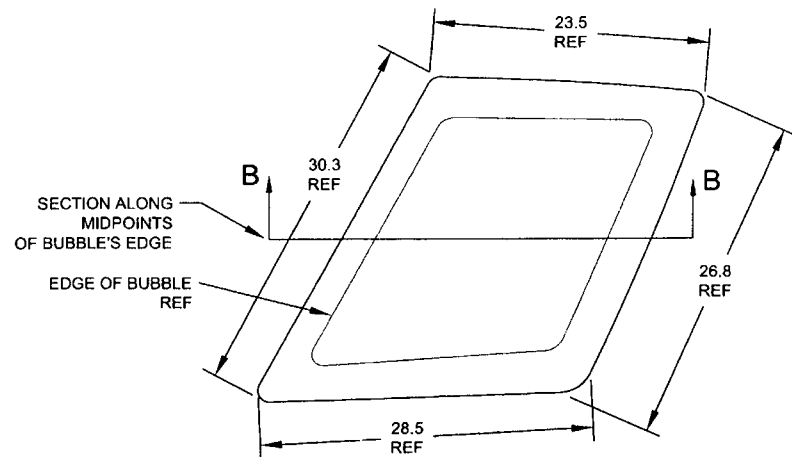
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8 7 6 5 4 3 2 1



D3269-2 BUBBLE WINDOW, RH

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RELEASED
2009-09-23

DESIGN	RF	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	UP	DRAWING NO.	REV. E
MFG. APPR.	AN	D3269	SHEET 2 OF 2
APPROVED	AN	TITLE	SCALE
DE APPR.	AN	BUBBLE WINDOW	NTS
DATE	09.08.21	<small>COPYRIGHT © 2005 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

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